REMARKS

Applicants hereby submit that the enclosures fulfill the requirements under 37 C.F.R. §1.821-1.825. The amendments in the specification merely insert the paper copy of the Sequence Listing and sequence identifiers in the specification. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing attorney docket number 13886-002001.

Respectfully submitted,

Date: 6-5-02

Y. Rocky Tsao
Reg. No. 34,053

Fish & Richardson P.C.
225 Franklin Street
Boston, Massachusetts 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906

20447337.doc

"Version With Markings to Show Changes Made"

In the specification:

Paragraph beginning at page 5, line 8, has been amended as follows:

_____Hsp70 gene was amplified from human hepatocellular carcinoma HepG2 cDNA with a gene-specific forward primer: 5'-cgcggatccATGGCCAAAGCCGCGGC-3' (SEQ ID NO:1), and a gene-specific reverse primer: 5'-cgcggatccCTAATCTACCTCCTCAATGG-3' (SEQ ID NO:2). The 1.92 kb Hsp DNA fragment was cleaved with *BamHI* and ligated with a *BamHI*-cleaved pRSETA vector. After transformation, plasmids were prepared from an overnight culture of transformed *E. coli* clones, and further analyzed by restriction enzyme digestion and sequencing. The recombinant plasmid containing Hsp70 gene was named as pRSETA/Hsp70.

Paragraph beginning at page 5, line 16, has been amended as follows:

Hsp C-terminal DNA fragment was amplified from pRSETA/Hsp70 with an HspC′-specific forward primer: 5'-gggaattcGCGATGCCAACGGCATCCTGAAC-3' (SEQ ID NO:3) and an HspC′-specific reverse primer: 5'-ggaaatttCTAATCTACCTCCTCAATGGTG-3' (SEQ ID NO:4). The 0.5 kb HspC′ DNA fragment was cleaved with *ApoI* and ligated with an *EcoRI*-cleaved pRSET vector. After transformation, plasmids were prepared from an overnight culture of transformed *E. coli* clones, and further analyzed by restriction enzyme digestion and sequencing. The recombinant plasmid containing Hsp C-terminal DNA fragment was named as pRSET/HspC′, which served as a backbone for construction of tumor antigen-HspC′ expression plasmids.

Paragraph beginning at page 5, line 26, has been amended as follows:

HepG2 cells were homogenized in RNAzol^{TM}B solution, and total RNA was prepared according to the protocol provided with the kit. The cDNA was synthesized by SuperScript^{TM} II Reverse Transcriptase (GIBCO BRL) with an oligo-d(T) $_{12-18}$ primer. AFP gene was amplified from HepG2 cDNA with a gene-specific forward primer: 5'-gcggatccACACTGCATAGAAATG AATATG-3' (SEQ ID NO:5), and a gene-specific reverse primer: 5'-gcggatccAACTCCCAAAG CAGCACGAG-3' (SEQ ID NO:6). The 1.77 kb AFP DNA fragment was cleaved with *BamHI*

and ligated with a *BamHI*-cleaved pcDNA3 vector. After transformation, plasmids were prepared from an overnight culture of transformed *E. coli* clones, and further analyzed by restriction enzyme digestion and sequencing. The recombinant plasmid containing AFP gene was named as pcDNA3/AFP.

Paragraph beginning at page 6, line 17, has been amended as follows:

Total RNA was prepared from LNCaP cells with RNAzol^{TM}B (Tel-Test). LNCaP cDNA was synthesized by SuperScript^{TM} II Reverse Transcriptase (GIBCO BRL) with an oligo-d(T) $_{12-18}$ primer. PSA gene was amplified from LNCaP cDNA with a gene-specific forward primer: 5'-ATTGTGGGAGGCTGGGAGTG-3' (SEQ ID NO:7) and a gene-specific reverse primer: 5'-GGGGTTGGCCACGATGGTG-3' (SEQ ID NO:8). The PCR reaction was performed by DyNAzyme^{TM} (FINNZYMES), and the 0.8 kb DNA fragment from PCR reaction was ligated to a pCRII vector (INVITROGEN) directly. After transformation, plasmids were prepared from an overnight culture of transformed *E. coli* clones, and further analyzed by restriction enzyme digestion and sequencing. The recombinant plasmid containing a sequence encoding the mature PSA was named as pCRII/mPSA.